Cairo University
Faculty of Science

Study Plan : BACHELOR OF PETROLEUM GEOSCIENCES

STUDENT'S No.: **STUDENT'S NAME:**

First Semester

Code No.	Course Title	Prerequisite	Th.	Pr.	Tut.	C.H.	Grade
PTM 101	Calculus I		2	0	1	**3**	
PTP 101	General Physics I		2	1	0	**3**	
PTC 101	General chemistry		2	1	0	**3**	
PTG 101	Introduction to Geology I		2	1	0	**3**	
PTY 101	Geophysics I		2	1	0	**3**	
Total			10	4	1	**15**	

Second Semester

Code No.	Course Title	Prerequisite	Th.	Pr.	Tut.	C.H.	Grade
PTM 102	Calculus II	PTM 101	2	0	1	**3**	
PTP 102	General Physics II		2	1	0	**3**	
PTC 102	Organic Chemistry		2	1	0	**3**	
PTG 102	Introduction to Geology II		2	1	0	**3**	
PTY 102	Geophysics II		2	1	0	**3**	
Total			10	4	1	**15**	

Third Semester

Code No.	Course Title	Prerequisite	Th.	Pr.	Tut.	C.H.	Grade
PTM 201	CALCULUS III	PTM 102	2	0	1	**3**	
PTP 201	PHYSICS OF WAVES	PTP101,PTP102, PTM102	2	1	0	**3**	
PTC 201	PRINCIPLES OF QUALITATIVE AND QUANTITATIVE ANALYSIS	PTC 101	2	1	0	**3**	
PTG 201	SEDIMENTOLOGY	PTG 102	2	1	0	**3**	
PTG 202	STRUCTURAL GEOLOGY IN PETROLEUM EXPLORATION AND DEVELOPMENT	PTG 101	2	1	0	**3**	
PTY 201	INTRODUCTION TO WELL LOGGING	PTY 102	2	1	0	**3**	
Total			12	5	1	**18**	

Fourth Semester

Code No.	Course Title	Prerequisite	Th.	Pr.	Tut.	C.H.	Grade
PTG 204	IGNEOUS AND METAMORPHIC PETROLOGY	PTG 102	1	1	0	**2**	
PTY 202	ROCK PHYSICS	PTP102, PTG102	2	0	0	**2**	
PTY 203	SEISMIC FIELD TECHNIQUES; SURVEY DESIGN AND DATA ACQUISITION	PTY102, PTP201	2	1	0	**3**	
PTG 203	APPLIED PALEONTOLOGY AND BIOSTRATIGRAPHY	PTG102	2	1	0	**3**	
PTM 202	DIFFERENTIAL & DIFFRENCE EQUATIONS	PTM 201	2	0	1	**3**	
PTY 204	POTENTIAL FIELD DATA ACQUISITION AND PROCESSING	PTY101,PTM201	2	1	0	**3**	
PTC 202	PHYSICAL CHEMISTRY	PTC 101	2	0	0	**2**	
Total			13	4	1	**18**	

Fifth Semester

Code No.	Course Title	Prerequisite	Th.	Pr.	Tut.	C.H.	Grade
PTM 301	VECTOR ANALYSIS AND NUMERICAL COMPUTATIONS	PTM 201	2	0	1	**3**	
PTP 301	SOLID STATE PHYSICS	PTP 201	2	1	0	**3**	
PTG 301	MAPPING SUBSURFACE STRUCTURES	PTG 202	1	0	0	**1**	
PTG 302	TECTONIC AND SEDIMENTATION	PTG201,PTG 202	1	0	0	**1**	
PTG 303	STRATIGRAPHY	PTG201,PTG203	1	1	0	**2**	
PTY 301	SIGNAL ANALYSIS	PTM202,PTP201	2	1	0	**3**	
PTY 302	COMPUTER APPLICATION IN GEOPHYSICS		1	1	0	**2**	
	Geology Elective Courses (Select 3 Cr.H)						
PTG 306	Remote Sensing and its application in Petroleum Exploration	PTG 202	1	0	0	**1**	
PTG 307	Hydrogeology	PTG 202	2	0	0	**2**	
PTG 308	Advanced structural Geology	PTG 202	2	0	0	**2**	
PTG 309	Palynology and Palynofacies	PTG 203	1	0	0	**1**	
PTG 310	Nanofossils	PTG 203	1	0	0	**1**	
PTG 311	Clay Mineralogy and Diagenisis	PTG 201	1	0	0	**1**	
Total			**13**	**4**	**1**	**18**	

Sixth Semester

Code No.	Course Title	Prerequisite	Th.	Pr.	Tut.	C.H.	Grade
PTG 304	SEDINETARY BASIN ANALYSIS	PTG 201	1	1	0	**2**	
PTG 305	ORGANIC GEOCHEMISTRY	PTG 201	1	0	0	**1**	
PTY 303	SEISMIC DATA PROCESSING	PTY 301, PTY 203	2	1	0	**3**	
PTY 304	PETROPHYSICS AND FORMATION EVALUATION	PTY201, PTY202, PTG301, PTG303	2	1	0	**3**	
PTM 302	INTRODUCTION TO COMPLEX ANALYSIS	PTM 102	1	0	0	**1**	
PTY 305	SEISMIC INVERSION AND MODELING	PTY202	1	1	0	**2**	
PTY 306	INTRODUCTION TO MINERAL AND PETROLEUM AGREEMENT		2	0	0	**2**	
PTE301	LANGUAGE (GEOSCIENCE READING TECHNIQUES)		1	0	0	**1**	
	Geophys Elective Courses (Select 3 Cr.H)						
PTY 307	Introduction to Seismology	PTY102, PTP201	1	0	0	**1**	
PTY 308	PETROLEUM ECONOMICS AND ASSESSMENT		1	0	0	**1**	
PTY 309	GEOTHERMAL AND RADIATION METHODS	PTP101, PTP102	2	0	0	**2**	
PTY 310	RADAR IN GEOPHYSICS	PTP101, PTP102	1	0	0	**1**	
Total			**14**	**4**	**0**	**18**	

Seventh Semester

Code No.	Course Title	Prerequisite	Th.	Pr.	Tut.	C.H.	Grade
PTY 401	SEISMIC INTERPRETATION	PTY301,PTY303, PTY305	2	1	0	**3**	
PTG 401	RESERVOIR CHARACTERIZATION	PTG 304	2	0	0	**2**	
PTG 402	GEOLOGY OF EGYPT	PTG 303	1	0	0	**1**	
PTP 401	FLUID MECHANICS	PTP 201	2	1	0	**3**	
PTY 402	INTERPRETATION OF POTENTIAL FIELD DATA	PTY 204	2	1	0	**3**	
PTY 403	SEISMIC STRATIGRAPHY	PTG201, PTG303	2	1	0	**3**	
	Geology Elective Courses (Select 3 Cr.H)						
PTG 405	Selected Topics in Geology	PTG302,PTG303 , PTG304	1	0	0	**1**	
PTG 406	Petroleum Geochemistry	PTG 305	1	0	0	**1**	
PTG 407	Earth Resources	PTG302, PTG303	1	0	0	**1**	
PTG 408	Clastic Reservoirs	PTG 302	1	0	0	**1**	
PTG 409	Petroleum Provinces in Egypt	PTG 402	1	0	0	**1**	
PTG 410	Environmental Geology	PTG 302	1	0	0	**1**	
PTG 411	Carbonate Reservoirs	PTG 302	1	0	0	**1**	
Total			14	4	0	**18**	

Eighth Semester

Code No.	Course Title	Prerequisite	Th.	Pr.	Tut.	C.H.	Grade
PTG 403	WELL-SITE GEOLOGY AND MUD LOGGING	PTG304,PTY201	1	0	0	**1**	
PTG 404	PETROLEUM GEOLOGY	PTG 305	1	1	0	**2**	
PTC 401	PETROLEUM CHEMISTRY AND REFINERY PROCESSES	PTC102	2	1	0	**3**	
PTY 404	ADVANCED WELL LOGGING AND CORRELATIONS	PTY304, PTG202, PTG 401	2	1	0	**3**	
PTY 405	INTEGRATION OF GEOPHYSICAL DATA	PTY401, PTY402	2	1	0	**3**	
PTY 406	PROJECT		2	0	0	**2**	
PTE401	LANGUAGE (GEOSCIENCE WRITING TECHNIQUES)		1	0	0	**1**	
	Geophysics Elective Courses (Select 3 Cr.H)						
PTY 407	MARINE GEOPHYSICS	PTY203,PTY204	1	0	0	**1**	
PTY 408	INTRODUCTION TO RESERVOIR GEOPHYSICS	PTY202,PTP201	1	0	0	**1**	
PTY 409	RESERVOIR SIMULATION AND PRODUCTIVITY	PTM301	2	0	0	**2**	
PTY 410	MINING GEOPHYSICS		1	0	0	**1**	
PTY 411	RESERVOIR ENGINEERING	PTM301	2	0	0	**2**	
PTY 412	ENGENEERING AND ENVIRONMENTAL GEOPHYSICS		1	0	0	**1**	
Total			14	4	0	**18**	

UNIVERSITY REQUIREMENT

COMPULSORY (6 Cr.H)

Code No.	Course Title	Prerequisite	Th.	Pr.	Tut.	C.H.	Grade
PTU101	Computer Science		2	0	0	**2**	
PTU102	The English Language		2	0	0	**2**	
PTU103	Human Rights		2	0	0	**2**	

ELECTIVES (Select 2 Cr.H)

Code No.	Course Title	Prerequisite	Th.	Pr.	Tut.	C.H.	Grade
PTU104	Introduction to Legal Studies		2	0	0	**2**	
PTU105	Principles of Management and Accounting		2	0	0	**2**	
PTU106	Arabic Language		2	0	0	**2**	
PTU107	Islamic Culture		2	0	0	**2**	
PTU108	History and Philosophy of Science		2	0	0	**2**	
PTU109	Environmental Culture		2	0	0	**2**	